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It's nice to get mail that's not a bill isn't it?
 In fact, this is the very *opposite* of an energy bill.

Using the information you supplied about your premises, our DextCalc system has worked out how much money and energy a Dext heat recovery system could potentially save you and your organisation, as well as the reduction in CO² emissions.

You'll see the headline savings at the top right of this letter, where:

Heating is the total our system offers for heating incoming air in one heating season of just 170 days¹.

Cost savings are determined using a rate of 0.25 pence per kilowatt³, and detailed calculations are presented overleaf.

It's important to understand that these figures represent the performance the DexThermic is *capable* of, but we need to make sure you actually use and take advantage of all the energy it recoups.

We can advise your team on how to integrate the system intelligently into your premises to wring every bit of value from it. ...Otherwise it's a bit like having a high performance battery constantly charged up, and not plugging anything into it!

We know that customers appreciate transparent communication and we're passionate about providing practical solutions built for the real world.

Proposed product & system:

DAHX - 850 - 550 - 1800 - 19 - 500H - 1595 - C2 - QORA² Run Around Version

Cost & Energy saving accumulative forecast:

Potential space pre-heating

Year 1:	Saving = £10,409	Energy = 41,637 kWh
Year 2:	Saving = £20,818	Energy = 83,273 kWh
Year 3:	Saving = £31,227	Energy = 124,910 kWh
Year 4:	Saving = £41,637	Energy = 166,547 kWh
Year 5:	Saving = £52,046	Energy = 208,183 kWh

The project over five years is forecast at a potential 'Heating' energy saving of over 208MW and £52k per site install.

The DexThermic QO-RA introduces a simplified approach to heat recovery, producing an initial level of heat that you can then 'top up'. It is designed to provide pre-heating to existing incoming air heating systems and will provide energy savings within the heating season¹.

The DexThermic QO-RA gives your gas or electric heating a head start, to help you get more out of your main heating source. It helps reduce overall energy usage and operational costs.

For a system capable of providing space heating *and* domestic hot water. We suggest the DexThermic CO-HP for extract temperatures below 35°C and for extract temperatures above 90°C we suggest the DexThermic CO-HT system.

To explore more about the product range, or to delve into performance data in more depth – our DexThermic technical brochure can provide additional detail².

We are looking forward to discussing your project and its potential savings (both financial and environmental) in more detail. I will be in touch within the next 4-5 working days to agree on a mutually convenient meeting time for further discussions. Alternatively, you can reach out to me using the contact information provided below.

Yours sincerely,
Neil Bracewell
 Commercial Director

Operational parameters:

Air extract volumetric flowrate : 3.5 m³ /s

Maximum temperature in extract duct :Max extract temp = 40°C

Minimum temperature in extract duct :Min extract temp = 30°C

Energy cost³ : Based on current market conditions or client data = 0.25 P/kWh

Carbon Intensity⁴ :Natural Gas emits: 0.200kg CO₂/kWh, Grid Electricity: 0.215kg CO₂/kWh with an average of: 0.207kg CO₂/kWh

Operation time : 12 hours a day

Average recovered energy :Based on 30°C to 40°C Extract : RCVY Quantity (Q) = 20.6kW, RCVY Quality (T) = 20.8°C

DAHX air side pressure drop :Air P-Drop (ΔP) = 35.0Pa

DAHX fluid side pressure drop :Fluid P-Drop (ΔP) = 13.1kPa

Average power input, the energy to run the system :AVG. P-Input = 0.2kW

Average energy output : AVG. E-Output = 20.4kWh

Day energy output : Day E-Output = 244.9kWh

Length of heating season¹ :Heating Season = 170 Days/Yr

Year space pre-heating energy saving potential:SPH E-Saving Potential = 41,637 kWh/Yr

Year space pre-heating cost saving potential:SPH E-Saving Potential = £10,409/Yr

Year space pre-heating CO₂ saving potential:SPH CO₂ savings ≈ 8,640 kg/yr

Performance & savings overview:

DextCalc works out your potential savings by looking at minimum and maximum performance variables and taking an average. We've laid out the individual performance cases for clarity below.

Case 1.1 [MAX] Input		Case 1.2 [MIN] Input		Case 1.3 [AVRG] Input	
Extract Flow	3.5m ³ /s	Extract Flow	3.5m ³ /s	Extract Flow	3.5m ³ /s
Extract Temp	40.0 °C	Extract Temp	30.0 °C	Extract Temp	35.0 °C
RCVY Quantity (Q)	23.4 kW	RCVY Quantity (Q)	17.8 kW	RCVY Quantity (Q)	20.6 kW
RCVY Quality (T)	23.6 °C	RCVY Quality (T)	17.9 °C	RCVY Quality (T)	20.8 °C
Air P-Drop (ΔP)	35.0 Pa	Air P-Drop (ΔP)	35.0 Pa	Air P-Drop (ΔP)	35.0 Pa
Fluid P-Drop (ΔP)	13.1 kPa	Fluid P-Drop (ΔP)	13.1 kPa	Fluid P-Drop (ΔP)	13.1 kPa
AVG. P-Input	0.2 kWh	AVG. P-Input	0.2 kWh	AVG. P-Input	0.2 kWh
Operation Time	12.0 Hr/Day	Operation Time	12.0 Hr/Day	Operation Time	12.0 Hr/Day
AVG. E-Output	23.2 kWh	AVG. E-Output	17.6 kWh	AVG. E-Output	20.4 kWh
Day E-Output	278.9 kWh	Day E-Output	210.9 kWh	Day E-Output	244.9 kWh
Heating Season	170 Days/Yr	Heating Season	170 Days/Yr	Heating Season	170 Days/Yr
SPH E-Saving Potential	47,416 kWh/Yr	SPH E-Saving Potential	35,858 kWh/Yr	SPH E-Saving Potential	41,637 kWh/Yr
Energy Cost	0.25 P/kWh	Energy Cost	0.25 P/kWh	Energy Cost	0.25 P/kWh
Carbon Intensity	0.208 kg CO ₂ /kWh	Carbon Intensity	0.208 kg CO ₂ /kWh	Carbon Intensity	0.208 kg CO ₂ /kWh
SPH E-Saving Potential	11,854 £/Yr	SPH E-Saving Potential	8,964 £/Yr	SPH E-Saving Potential	10,409 £/Yr
SPH CO ₂ Savings	≈9,839 kg/Yr	SPH CO ₂ Savings	≈7,440 kg/Yr	SPH CO ₂ Savings	≈8,640 kg/Yr

Case 1.1 [MAX] - SPH Forecast Savings			Case 1.2 [MIN] - SPH Forecast Savings			Case 1.3 [AVRG] - SPH Forecast Savings		
Year	Savings	Energy	Year	Savings	Energy	Year	Savings	Energy
1	£11,854	47,416 kWh	1	£8,964	35,858 kWh	1	£10,409	41,637 kWh
2	£23,708	94,831 kWh	2	£17,929	71,716 kWh	2	£20,818	83,273 kWh
3	£35,562	142,247 kWh	3	£26,893	107,573 kWh	3	£31,227	124,910 kWh
4	£47,416	189,662 kWh	4	£35,858	143,431 kWh	4	£41,637	166,547 kWh
5	£59,269	237,078 kWh	5	£44,822	179,289 kWh	5	£52,046	208,183 kWh



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Disclaimer

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2. Dext Evolution Ltd. DexThermic - The Dirty Air Heat Exchanger. Sheffield, South Yorkshire. WEB-20230718-G3R32-DexThermic Tech Brochure.pdf, <https://dext.ams3.digitaloceanspaces.com/wp-content/uploads/2023/10/03100711/DextCalc-Sample-Report-Happy-Grill-compressed.pdf>
3. Department for Business, Energy & Industrial Strategy. Prices of fuels purchased by non-domestic consumer in the United Kingdom, 30/3/2023, <https://www.gov.uk/government/statistical-data-sets/gas-and-electricity-prices-in-the-non-domestic-sector>
4. Department for Business, Energy & Industrial Strategy. Government conversion factors for company reporting of greenhouse gas emissions, 7/6/2023, <https://www.gov.uk/government/collections/government-conversion-factors-for-company-reporting>

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